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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/524,590

02/15/2005

Naohiro Matsunaga

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EXAMINER

HON, SOW FUN

ART UNIT

PAPER NUMBER

1772

MAIL DATE

DELIVERY MODE

02/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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| Advisory Action Before the Filing of an Appeal Brief | Application No. 10/524,590 | Applicant(s) MATSUNAGA ET AL. | |
| | Examiner Sow-Fun Hon | Art Unit 1772 | |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 January 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: _____.
- Claim(s) objected to: _____.
- Claim(s) rejected: _____.
- Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attachment to advisory action.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: Attachment to advisory action.

Advisory Action

1. Applicant's request for reconsideration, filed 01/17/07, has been fully considered, and deemed unpersuasive for the reasons set forth below.

2. Applicant argues that Nakamura does not disclose or suggest a low refractive index layer that comprises at least one inorganic fine particle having an average particle size of 30 to 100% of the thickness of the low refractive index and at least one fine silica particle having a particle size of less than 25% of the thickness of the low refractive index layer, as recited in claim 15, while Oka fails to cure the above deficiencies since Nakamura discloses an anti-reflection film that has micro voids formed by superposing at least two particles one on another, so that one of ordinary skill in the art would not have been motivated to include the inorganic fillers of Oka to prevent settling of the micro particles disclosed by Nakamura in view of Nakamura's disclosure that the micro particles are on each other and bound together with a binder.

Applicant is respectfully apprised that Nakamura teaches that inorganic fine particles are so deposited to superpose at least one micro particle on another (column 5, lines 35-40) wherein the amount of the inorganic micro particles can be 50 wt.% based on the total amount of low refractive index layer (column 5, lines 45-51), with a particle size range of 5 to 200 nm (column 5, lines 43-44), and wherein the micro-voids can be contained in a low volume fraction of 0.05 in the low refractive index layer (column 2, lines 53-57), for the purpose of providing a low refractive index layer with higher mechanical strength (column 12, lines 46-48). When the volume fraction of the micro-voids is low, the amount of inorganic micro particles is low in the low refractive

index layer of Nakamura, and hence the fine silica particles of Oka is needed to prevent settling of the inorganic micro particles in the low refractive index layer of Nakamura.

3. Applicant argues that it is this densely packed configuration of the micro particles that creates the micro voids desired by Nakamura, and thus at best, Nakamura suggests that the settling of the micro particles is in fact desirable to form the densely packed configuration of the micro particles is in fact desirable in order to form the densely packed configuration of the micro particles.

Applicant is respectfully apprised that Nakamura does teach that the micro-voids can be contained in a low volume fraction of 0.05 in the low refractive index layer (column 2, lines 53-57), for the purpose of providing a low refractive index layer with higher mechanical strength (column 12, lines 46-48). When the volume fraction of the micro-voids is low, the amount of inorganic micro particles is low in the low refractive index layer of Nakamura, and hence the fine silica particles of Oka are needed to prevent settling of the inorganic micro particles in the low refractive index layer of Nakamura. To summarize, Nakamura teaches that the densely packed configuration is not desirable if high mechanical strength of the low refractive index layer is desired (column 12, lines 46-48), and that said densely packed configuration is only one of the options (in the case, column 12, lines 33-45). Therefore, the fine silica particles of Oka are needed to prevent settling of the inorganic micro particles in the low refractive index layer of Nakamura when the volume fraction of the micro-voids, and hence the amount of inorganic micro particles, is low, in the case where high mechanical strength of the low refractive index layer is desired.

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4. Applicant argues that furthermore, Oka discloses an antireflection film having an antiglare layer and a low refractive index layer, wherein the inorganic fillers are employed in the antiglare layer thereof, and has no disclosure or suggestion of employing such inorganic fillers in the low refractive index layer thereof.

Applicant is respectfully apprised that Nakamura teaches the formation of the low refractive index layer with the use of a coating solution containing the inorganic particles (column 15, lines 20-25), wherein the low refractive index layer can also have an antiglare function (forming unevenness, column 15, lines 10-25).). Thus, Nakamura teaches that the low refractive index layer can also function as an antiglare layer, which can be modified by Oka. Oka teaches the formation of an antiglare layer with the use of a coating solution containing the larger inorganic particles which require the fine silica particles to be used as a nonsettling suspending agent to prevent settling of the larger inorganic particles in the coating solution (column 9, lines 45-53).

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Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon

Sow-Fun Hon

01/31/07

Nasser Ahmad
NASSER AHMAD
PRIMARY EXAMINER *2/1/07*